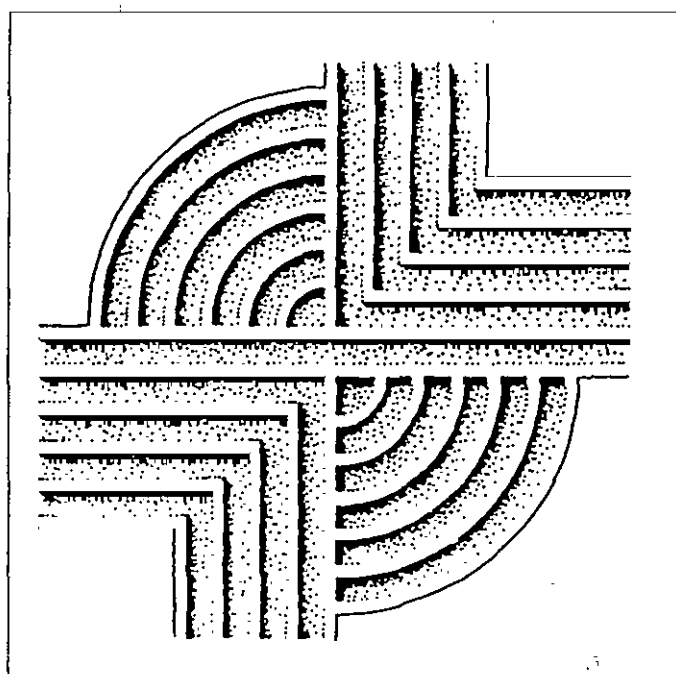


**AN INTENSIVE ARCHAEOLOGICAL SURVEY OF THE LINCOLN
COUNTY AIRPORT EXPANSION PROJECT, LINCOLN COUNTY,
NORTH CAROLINA**



CHICORA RESEARCH CONTRIBUTION 236

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**AN INTENSIVE ARCHAEOLOGICAL SURVEY OF THE LINCOLN
COUNTY AIRPORT EXPANSION PROJECT, LINCOLN COUNTY,
NORTH CAROLINA**

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Chicora Research Contribution 236

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ABSTRACT

This study presents the results of an intensive archaeological survey of 283 acres located approximately 4 miles east of Lincolnton, North Carolina. The survey tract lies exclusively in Lincoln County, North Carolina and the purpose of this investigation was to locate any archaeological sites which may exist within the survey tract and evaluate them for their eligibility for inclusion on the National Register of Historic Places.

Examination of the site files housed at the Office of the State Archaeologist of North Carolina indicate that, although there were no previously recorded sites within present the survey tract, two prehistoric sites were recovered south and east of the survey tract during a reconnaissance survey performed by Patrick Garrow of the Earth Systems Division of Soil

System, Inc. in 1977.

As a result of these investigations, one prehistoric site (31LN185*) and one historic site (31LN184**) were identified on the study tract. Neither is recommended as eligible for inclusion on the National Register of Historic Places.

As always, it is possible that additional, but unidentified, resources may exist on the survey tract. Consequently, the contractor for the expansion of the Lincoln County Airport complex is cautioned that if any archaeological or historical remains are identified during any future construction, all work should immediately cease and the identified remains should be reported to either Chicora Foundation, Inc. or the State Historic Preservation Office.

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INTRODUCTION

Project Background

This survey was conducted by Mr. William B. Barr of Chicora Foundation, Inc. for Mr. James L. Kempson of W.K. Dickson and Company, Inc.. The project area is located in Lincoln County, North Carolina (Figure 1) approximately 4 miles east of the city of Linclonton, North Carolina (Figure 2). The survey tract is divided into two parcels which are designated as Section "A" and Section "B". The larger of the two, Section "A", lies north and east of the existing airport complex and encompasses approximately 177 acres (Figure 3). This section of the survey tract is bisected by Airport Drive and bordered to the south by the airport runway, terminal building, hangers, and maintenance buildings. To the north of Airport Drive the survey tract encompasses property currently owned by the Cronlands family. The portion east and south of the west end of the runway is currently privately owned. The second survey tract Section "B" consists of about 106 acres (Figure 3). This area lies east of the airport complex and is bisected by Smith Family Lane.

Topography in both project areas consists of moderately to severely sloping terrain along with open areas, fenced pasture, and heavily wooded areas. In Section "A" the area south of Airport Drive is heavily disturbed from earth moving activities associated with the construction of the runway (Figure 4 and Figure 5). A gradual to moderate slope runs north from Airport Drive through open pasture (Figure 6). The western portion of the survey tract consists of moderate to extreme slopes (upwards of 70%) with sharp ridges (Figure 7). The area south of the existing runway contains a moderate slope, which was recently cleared approximately two to three years ago, and currently contains planted pine. Section "B" contains a moderate slope west of Smith Family Lane (Figure 8) and is bordered by Lick Run Creek. The area east of Smith Family Lane contains a steep (approximately 50%) slope

(Figure 9) and is bordered by a drainage of Lick Run Creek.

The project area is currently proposed for the expansion of the Lincoln County Airport complex. As a result, we anticipate potential disturbance from clearing and grubbing, grading, construction of utilities, as well as the construction of runway extension. This work has the potential to seriously damage any archaeological remains which may exist on the property.

This study was initiated to provide a detailed explanation of possible archaeological resources within the 283 acre tract. Specifically, the study was intended to:

- locate historical and archaeological remains which may exist on the tract, and
- to provide an assessment of eligibility of these sites for inclusion in the National Register of Historic Places.

Chicora received a request for a budgetary proposal for this intensive archaeological survey from Mr. James L. Kempson of W.K. Dickson and Company, Inc. on April 21, 1997. Our proposal, dated May 13, 1997, was accepted on October 9, 1997.

Chicora Research Archaeologist Mr. William B. Barr examined the site files of the North Carolina State Archaeologists Office and two sites had been previously identified on the Lincoln County Airport tract. As well, any previous architectural surveys or the presence of any National Register sites, districts, properties or objects in the project area were investigated at that time. None were located within the project area.

The field investigations were undertaken

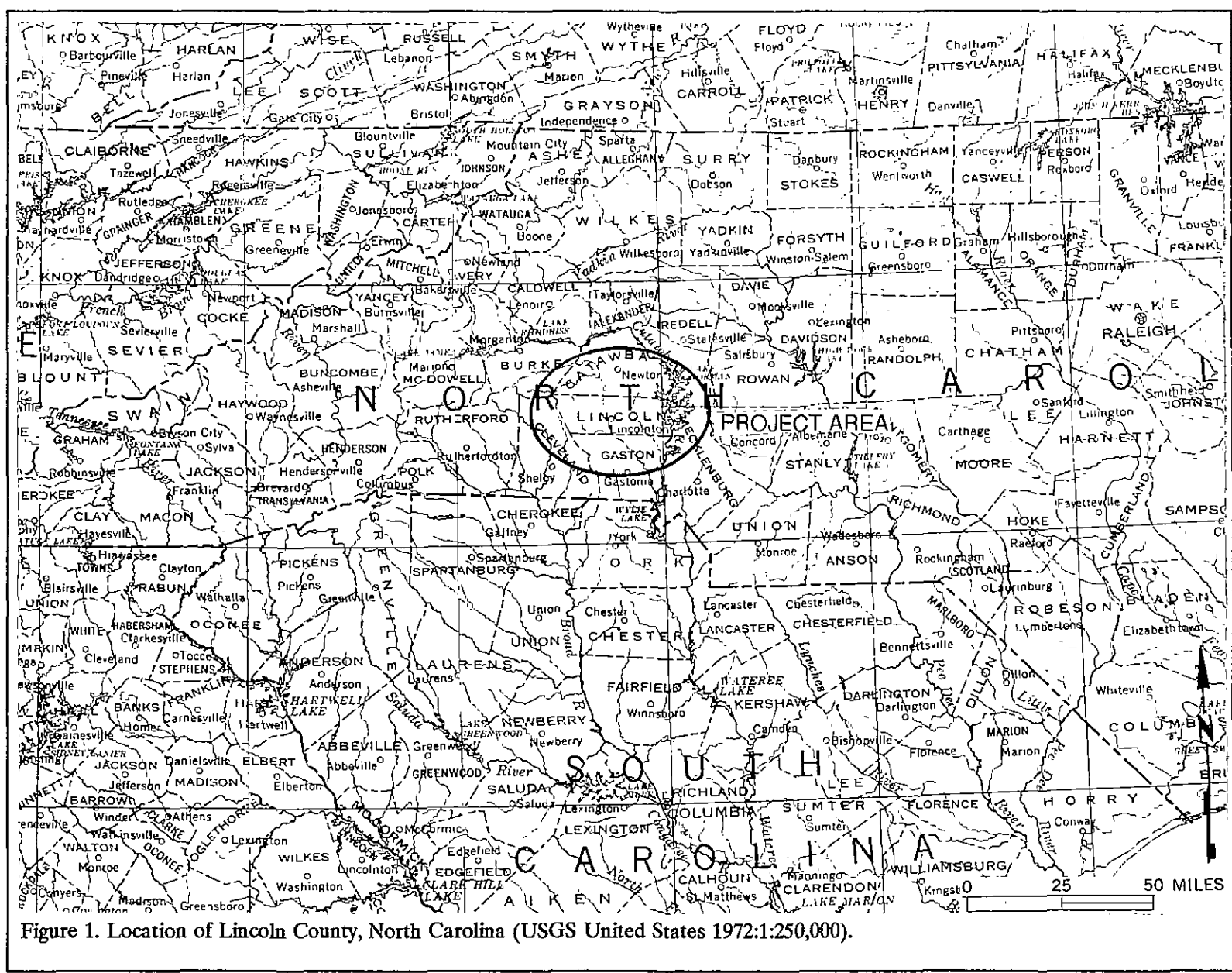


Figure 1. Location of Lincoln County, North Carolina (USGS United States 1972:1:250,000).

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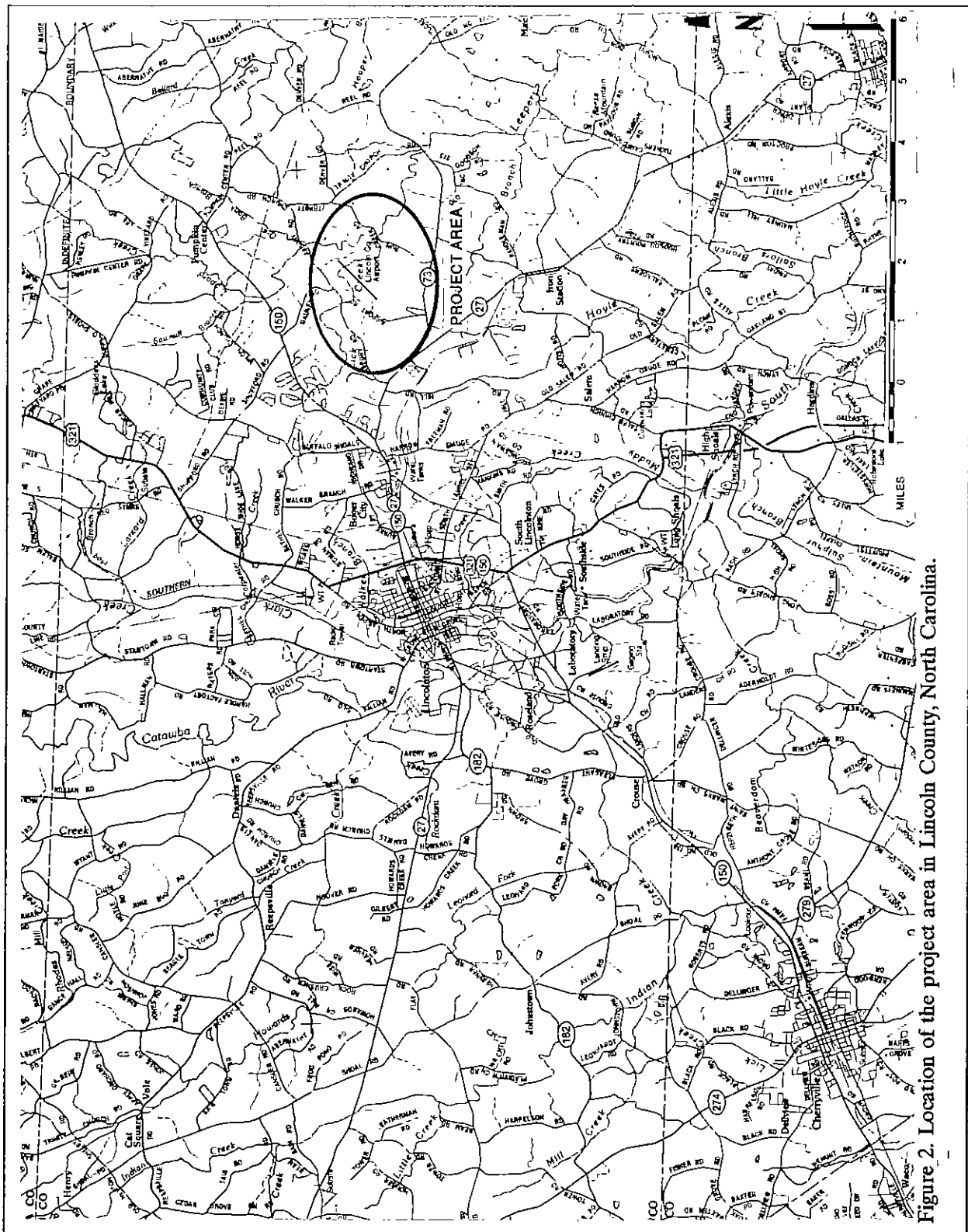


Figure 2. Location of the project area in Lincoln County, North Carolina.

LINCOLN COUNTY AIRPORT EXTENSION SURVEY

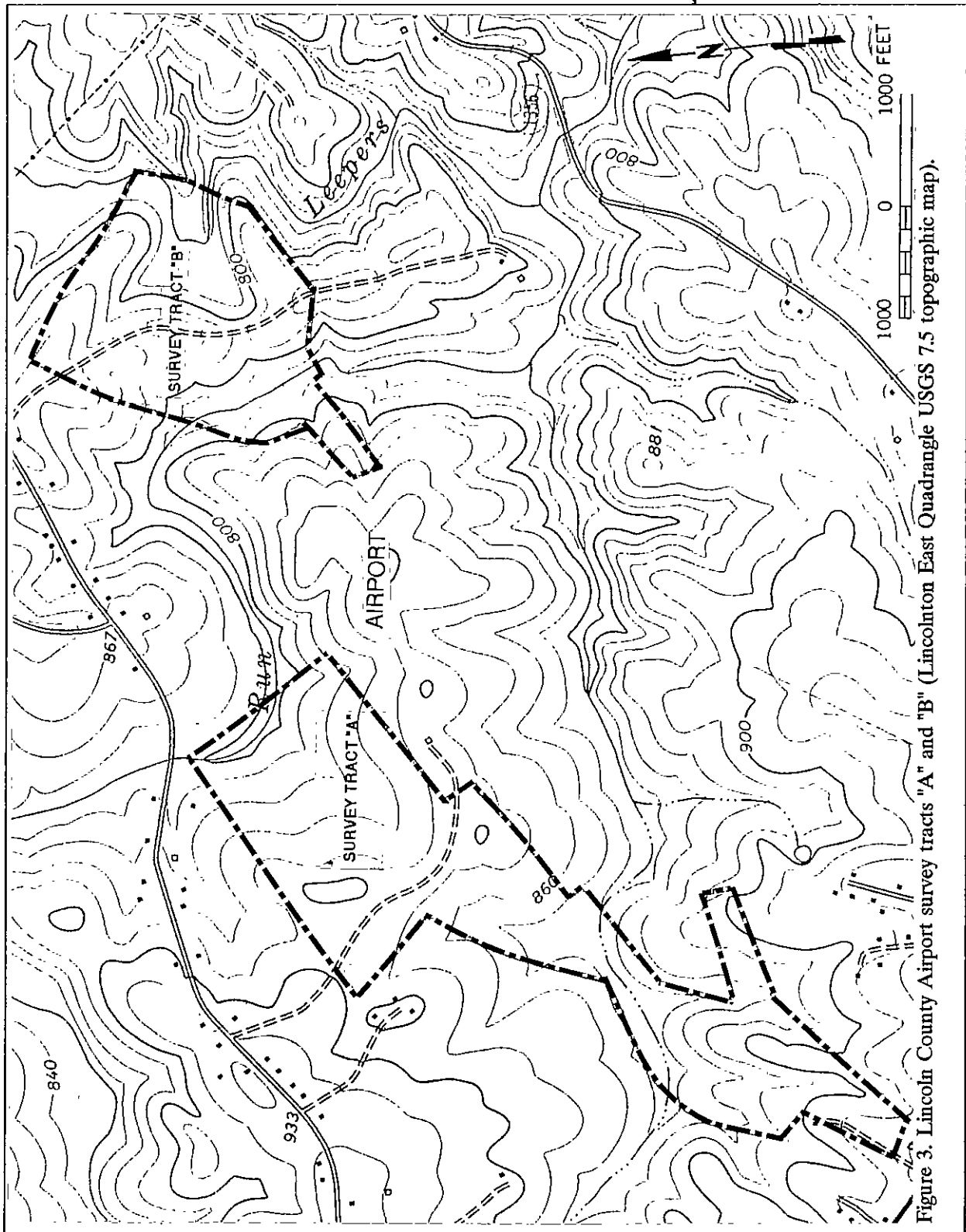


Figure 3. Lincoln County Airport survey tracts "A" and "B" (Lincolnton East Quadrangle USGS 7.5 topographic map).



Figure 4. Borrow pit south of Airport Drive in Section "A" (view to the south).

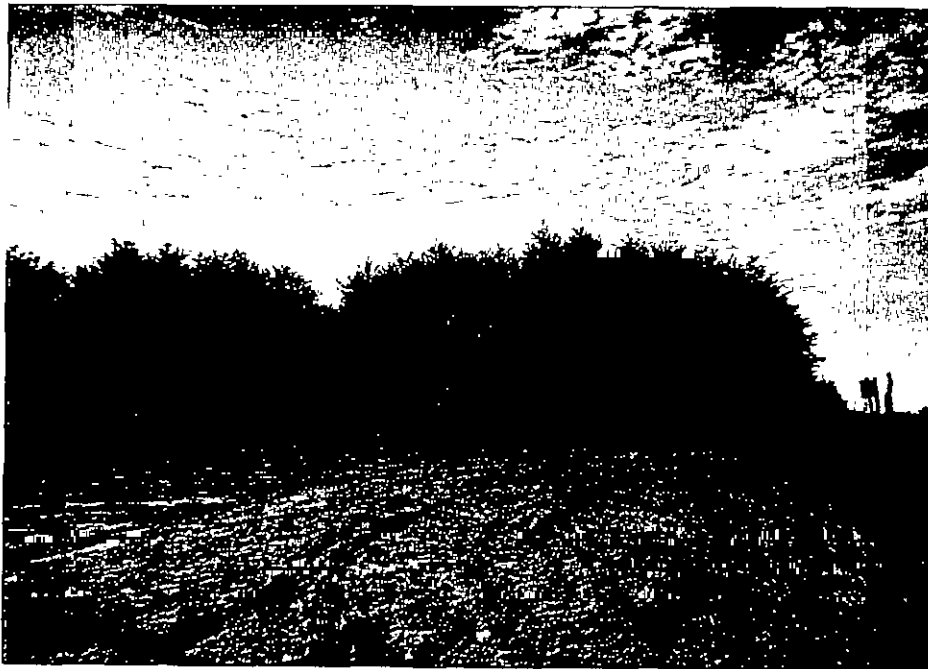


Figure 5. Graded area south of Airport Drive in Section "A" (view to the south).



Figure 6. Open pasture north of Airport Drive in Section "A" (view to the north).



Figure 7. Western portion of Section "A" showing extreme slope (view to the west).

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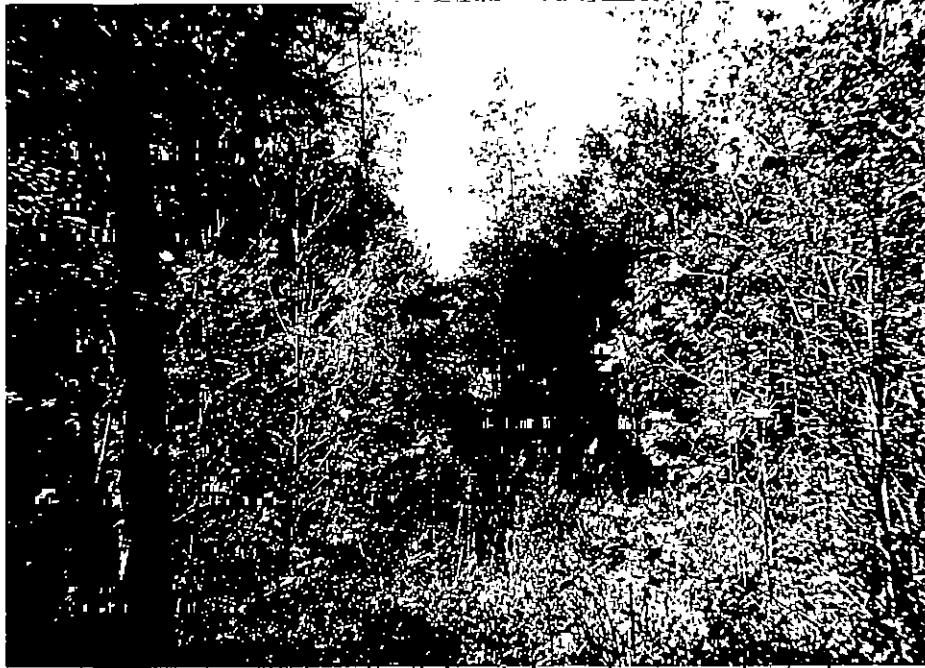


Figure 8. Western portion of Section "B" from Smith Family Lane showing moderate slope.



Figure 9. Eastern portion of Section "B" from Smith Family Lane showing extreme slope.

by Chicora Foundation, Inc. by Chicora Research Archaeologist Mr. William B. Barr with the assistance of Ms. Martha Houston, Mr. Ian Hamer, and Mr. John D. Hamer on October 27-29, 1997. The report preparation took place at Chicora Foundation's offices in Columbia on December 3, 1997.

Curation

Archaeological site forms have been filed with the North Carolina Office of the State Archaeologist. The field notes and artifacts resulting from these investigations will be curated with that institution using their proveniencing system which consists of site number-site provenience number-artifact number.

All original records and duplicate copies were provided to the institution on pH neutral, alkaline buffered permanent paper. The artifacts are housed in ziplock bags with pH neutral, alkaline buffered tags. Photographic materials, which consist only of color prints, are not archivally stable and have therefore been retained in Chicora's project files.

NATURAL ENVIRONMENT

Physiography

This project area for the Lincoln County airport extension is situated approximately 4 miles east of the city of Lincolnton in Lincoln County in the west-central portion of North Carolina. Lincoln County contains about 307 square miles, or 196,262 acres (Woody 1995:1), comprising an area roughly rectangular in shape. It is bounded by Catawba County to the north, Gaston County to the south, Iredell and Mecklenburg counties to the east, and Cleveland County to the west. Part of Lake Norman is situated on the eastern boundary of Lincoln County.

Lincoln County is situated in the south-central portion of the southwestern Piedmont physiographic region. The Piedmont, located between the Mountain and Coastal Plain regions, is an area of dendritic drainage and red clay. The name "piedmont" means "foot of the mountains," which describes the general topography: a rolling eroded plateau with rounded hills and low ridges (Gade et al. 1986:146).

The primary drainage of Lincoln county is the Catawba River, which is located about 10 miles east of the project area. Lick Creek, which drains southward into the Catawba River, is located near the project area. Project area elevations range from 860 to 880 feet above mean sea level (AMSL). Aerial photographs of the area show that much of the land surrounding the north portion of the airport is clear cut, although there are remnant wooded areas. The survey areas, located east, southwest, and northwest of the existing airport consist of mostly forested land. In the survey tract east of the airport, Smith Family Lane runs roughly north-south on a heavily forested ridge that slopes steeply on both sides. The northwestern portion of the project area, located north of the airport between Airport Drive and Asbury Road, lies in an area that is about 880 feet AMSL and is heavily forested with pine, oak,

scrub oak and a thick understory. The southwestern portion of the project area follows a steep ridge that slopes to the southwest into a drainage of Lick Run Creek. Vegetation in this section of the survey tract primarily contains mature oaks and pines.

Geology and Soils

Lincoln county is located on the boundary of the Inner Piedmont, Kings Mountain, and Charlotte geologic belts (Woody 1995:2), but is most closely associated with the Kings Mountain and Inner Piedmont belts, comprised of mostly gneiss and schist rocks (Woody 1995:2-3). This area is also rich in tin and lithium bearing minerals, and in the late 1700s to early 1800s, was an important producer of iron (Woody 1995:2-3).

The project area is situated mainly on the Cecil-Pacolet soil complex, which is described as "gently sloping to steep, well drained soils that have a loamy surface layer and a predominantly clayey subsoil" (Woody 1995:8). In particular, the project area is composed of Cecil sandy clay loam, Pacolet sandy loam, and Pacolet sandy clay loam (Woody 1995:Map 6). These soils formed in material weathered from igneous, felsic and metamorphic rocks. In general, Cecil soils are used as pasture and cropland, while the Pacolet soils are used as woodland. Cecil soils have deeper, better defined profiles than the Pacolet soils, which are more likely to be affected by geologic erosion and therefore have more shallow and less well defined soils (Woody 1995:82). Approximately 75% of the survey area is situated on eroded Pacolet soils and 30% is on Cecil soils.

In the Piedmont area, soil erosion has been a common problem due to poor farming practices, such as shallow plowing and limited crop rotation, and the conversion of rural areas to residential subdivisions, shopping malls, industrial complexes and highway systems (Gade et al.

1986:149). During the original survey for the Lincoln County airport, it was noted that the dense red clay subsoil throughout the survey area was exposed due to erosion (Garrow 1977:3). Other Piedmont areas are also exposed to erosion, particularly on ridge tops and slopes that are used extensively for agriculture (Gardner 1991:2-4). The immediate project area exhibits heavy erosion in some areas, most likely due to the construction of the airport, as well as along ridges and slopes found on the eastern and western perimeters of the project area. These areas are composed of Pacolet soils. As Woody (1995:29) notes, removal of vegetation from Pacolet sandy loam soils, found in the eastern portion of the project area, causes a very severe erosion hazard. Pacolet sandy clay loam soils, located in the western portion of the project are also noted to be subject to severe erosion in construction areas and on slopes (Woody 1995:31).

Climate

Elevation and geography both affect the climate of Lincoln county. The Appalachian Mountains to the west of the county block cold air masses from the northwest, and elevations in the Piedmont area, ranging from 650 feet to 1,500 feet AMSL, help maintain relatively mild temperatures, with mild, short winters and warm summers. During the warmest month of the year, July, temperatures average about 78-80°F, while January temperatures, generally the coldest of the year, average about 42-44°F. The area is also characterized by a humid climate with abundant rainfall, averaging about 44-48 inches annually.

The growing season for most crops is during the months of April through September, when 52% of the annual rainfall occurs. According to a report published by the State Board of Agriculture in 1896, agriculture was quite successful in this part of the state due to the rich soils and temperate climate. A large portion of the agricultural land was devoted to tobacco and cotton. Corn, grain, apples, pears, peaches, cherries, and grapes were also common crops at the turn of the century.

Floristics

The Piedmont is characterized by the dominance of a pine forest cover, due primarily to three centuries of human land use in the region (Gade et al. 1986:8). Oaks, hickories, and dogwoods also characterize the forests of the Piedmont (State board of Agriculture 1896:37). Oak-hickory forests account for most of the forest acreage in Lincoln County, with common trees including elm, red maple, and yellow poplar (Woody 1995:51). Loblolly-shortleaf pine forests are the next most common forest type in Lincoln County, including red oak, white oak, gum, hickory and yellow-poplar trees (Woody 1995:50-51). Presently, commercial forests cover about 49% of the county (Woody 1995:50).

Although most of Section "A" is heavily wooded with mature pine, oak, and scrub oak, the area north of Airport Drive is cleared pasture. All of Section "B" is heavily wooded in pine and oak with a scrub oak understory.

BACKGROUND RESEARCH

Previous Research

Previous research in the Lincoln County area has been dominated by cultural resource management surveys (for example, see Abbot and Adams 1996, Barker 1991). Important historic sites, such as the mass grave site for soldiers in the Revolutionary War Battle of Ramsour's Mill (31LN53⁺), located about 0.5 mile from Lincolnton, and the Johnson House Site (31LN78⁺⁺) have been excavated in the last decade (Barker 1991, Gardner 1991).

The most recent survey in the project area was that for the original Lincoln County Airport. Conducted by Patrick H. Garrow in 1977 for Soil Systems, Inc., this pedestrian survey discovered two sites, one prehistoric (31LN182⁺*) and one historic (31LN183^{*}).

Site 31LN182^{**}, a prehistoric lithic scatter, was located south of present-day Airport Drive and west of the Lincoln County airport terminal building. A drainage of Lick Run Creek lies about 1,312 feet to the west. The central UTM coordinates are N3926320 E484960. The site was located on a knoll and the elevation was 900 feet AMSL. Based on the surface collection, the site measured approximately 30 square yards in size.

Artifacts collected included one fragmentary quartz Morrow Mountain projectile point or knife, one quartz unifacial scraper, one broken quartz Kirk projectile point or knife, and one retouched quartz flake (Garrow 1977:6). No additional artifacts or debitage was recovered. The site was recommended as not eligible for inclusion on the National Register of Historic Places with no further work required.

Site 31LN183⁺, an historic house site, was located south of present-day Airport Drive southwest of the Lincoln County airport terminal. A drainage of Lick Run Creek lies about 1,443 feet to the west. The central UTM coordinates are

N3926480 E485210. The site was located on a knoll and the elevation was 900 feet. Based on the surface collection, the site measured about 30 square yards in size.

The site was recorded by Garrow (1977) as an extant historic house site that was being utilized as a hay barn at the time of the survey. Very few cultural materials were recorded in association with the structure, although the report mentions ironstone ceramics. "as well as materials which dated from the first half of the twentieth century" (Garrow 1977:8). The site was recommended as not eligible for inclusion on the National Register of Historic Places with no further work required.

Prehistoric Overview

Overviews for North Carolina's prehistory, while of differing lengths and complexity, are available in virtually every compliance report prepared. There are, in addition, some "classic" sources well worth attention, such as Joffre Coe's *Formative Cultures* (Coe 1964), as well as some new general overviews (such as Ward 1983). These can be supplemented with a broad range of theses and dissertations produced by students of North Carolina's colleges and universities. Also extremely helpful, perhaps even essential, are a handful of recent local synthetic statements, such as that offered by Sassaman and Anderson (1994) for the Middle and Late Archaic. Only a few of the many sources are included in this study, but they should be adequate to give the reader a "feel" for the area and help establish a context for the various sites identified in the study area. Figure 10 offers a generalized view of North Carolina's cultural periods.

In the Carolina Piedmont, lithic scatters are the most common type of prehistoric site encountered. Goodyear et al. (1979:131-145) found that sites containing lithic scatters located in the inter-riverine Piedmont were geographically extensive and exhibited little artifact diversity.

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			Regional Phases				
Dates	Period	Sub-Period	NORTH COASTAL		SOUTH COASTAL	CENTRAL PIEDMONT	
1715	HIST.	EARLY	Tide Water Carolina Algonkians	Inner Coastal Plain Meherrin Tuscarora	Waccamaw ?	Caraway	
1650							
	WOODLAND	LATE	Collington	Cashie	Oak Island	Dan River	Pee Dee
800						Uwharrie	
A.D. B.C.		MIDDLE	Mount Pleasant		Cape Fear Hanover	Yadkin	
300		EARLY	Deep Creek		New River	Badin	
1000	ARCHAIC				Thom's Creek Stallings		
2000		LATE			Savannah River Halifax		
3000							
	ARCHAIC	MIDDLE			Gulford Morrow Mountain Stanly		
5000							
8000	PALEO INDIAN	EARLY			Kirk Palmer		
10,000					- Hardaway -		
12,000					Hardaway - Dalton Clovis		

Figure 10. A generalized cultural sequence for the North Carolina coast and piedmont (partially adapted from Coc 1964:Figure 116 and Phelps 1983:Figure 1.2).

These sites have been interpreted as:

limited or specialized activity sites which represent resource exploitation or other distinct functions. Nearly all investigators working in the Piedmont have related these sites to activities involving hunting, nut gathering, and procuring of lithic raw materials (Canouts and Goodyear n.d.:8).

Although the vast majority of these sites are located in eroded areas and exhibit little to no subsurface integrity, Canouts and Goodyear (1985) argue that they have analytical value. This value lies in their horizontal rather than vertical dimensions. They argue that:

future investigators of upland sites must effect broad-scale spatial analyses comparable to the temporal analyses effected through excavation of deeply stratified sites. Both endeavors are necessary, and neither is sufficient for the total understanding of Piedmont prehistory" (Canouts and Goodyear 1985: 193).

One observation that Canouts and Goodyear (1985) made is that lithic raw material ratios change through time. For instance, at the Gregg Shoals site in Elbert County, Georgia, the Early Archaic assemblage reflects greater use of non-local cryptocrystalline materials and the Late Archaic, greater use of non-quartz local material (see Tippitt and Marquardt 1981).

Turning to South Carolina, Brooks and Crass (1991) have published a predictive model for historic resources on the Savannah River Site based on survey and archival data. While early pioneers settled on the Savannah River, by the late eighteenth century, settlements had progressed up the larger drainages. As better road systems developed in the nineteenth century, settlement became more road oriented (Brooks and Crass

1991:78-79). This suggests that historic settlement patterning may have changed very little through the county's history.

Paleoindian Period

The Paleoindian Period, most commonly dated from about 12,000 to 10,000 B.P., is evidenced by basally thinned, side-notch projectile points; fluted, lancelet projectile points; side scrapers; end scrapers; and drills (Coe 1964; Michie 1977; Williams 1968). Oliver (1981, 1985) has proposed to extend the Paleoindian dating in the North Carolina Piedmont to perhaps as early as 14,000 B.P., incorporating the Hardaway Side-Notched and Palmer Corner-Notched types, usually accepted as Early Archaic, as representatives of the terminal phase. This view, verbally suggested by Coe for a number of years, has considerable technological appeal.¹ Oliver suggests a continuity from the Hardaway Blade through the Hardaway-Dalton to the Hardaway Side-Notched, eventually to the Palmer Side-Notched (Oliver 1985:199-200). While convincingly argued, this approach is not universally accepted.

The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented toward the exploitation of now extinct mega-fauna" (Michie 1977:124). Survey data for Paleoindian tools, most notably fluted points, is rather dated for North Carolina (Brennan 1982; Peck 1988; Perkinson 1971, 1973; cf. Anderson 1990b). In spite of this, the distribution offered by Anderson (1992:Figure 5.1) reveals a rather general, and

While never discussed by Coe at length, he did observe that many of the Hardaway points, especially from the lowest contexts, had facial fluting or thinning which, "in cases where the side-notches or basal portions were missing, . . . could be mistaken for fluted points of the Paleo-Indian period" (Coe 1964:64). While not an especially strong statement, it does reveal the formation of the concept. Further insight is offered by Ward's (1983:63) all too brief comments on the more recent investigations at the Hardaway site (see also Daniel 1992).

widespread, occurrence throughout the region.

Distinctive projectile points may include lanceolates such as Clovis, Dalton, perhaps the Hardaway, and Big Sandy (Coe 1964; Phelps 1983; Oliver 1985). A temporal sequence of Paleoindian projectile points was proposed by Williams (1965:24-51), but according to Phelps (1983:18) there is little stratigraphic or chronometric evidence for it. While this is certainly true, a number of authors, such as Anderson (1992a) and Oliver (1985) have assembled impressive data sets. We are inclined to believe that while often not conclusively proven by stratigraphic excavations (and such proof may be an unreasonable expectation), there is a large body of circumstantial evidence. The weight of this evidence tends to provide considerable support.

Unfortunately, relatively little is known about Paleoindian subsistence strategies, settlement systems, or social organization (see, however, Anderson 1992b for an excellent overview and synthesis of what is known). Generally, archaeologists agree that the Paleoindian groups were at a band level of society (see Service 1966), were nomadic, and were both hunters and foragers. While population density, based on isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

Archaic Period

The Archaic Period, which dates from 10,000 to 3,000 B.P.¹, does not form a sharp break

with the Paleoindian Period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited animal. Archaic period assemblages, exemplified by corner-notched and broad-stemmed projectile points, are fairly common, perhaps because the swamps and drainages offered especially attractive ecotones.

Some researchers (see for example, Ward 1983:65) suggest that there was a noticeable population increase from the Paleoindian into the Early Archaic. This has tentatively been associated with a greater emphasis on foraging. Diagnostic Early Archaic artifacts include the Kirk Corner Notched point. As previously discussed, Palmer points may be included with either the Paleoindian or Archaic period, depending on theoretical perspective. As the climate became hotter and drier than the previous Paleoindian period, resulting in vegetational changes, it also affected settlement patterning as evidenced by a long-term Kirk phase midden deposit at the Hardaway site (Coe 1964:60). This is believed to have been the result of a change in subsistence strategies.

Settlements during the Early Archaic suggest the presence of a few, very large, and apparently intensively occupied, sites which can best be considered base camps. Hardaway might be one such site. In addition, there were numerous small sites which produced only a few artifacts — these are the "network of tracks" mentioned by

¹ The terminal point for the Archaic is no clearer than that for the Paleoindian and many researchers suggest a terminal date of 4,000 B.P. rather than 3,000 B.P. There is also the question of whether ceramics, such as the fiber-tempered Stallings ware, will be included as Archaic, or will be included with the Woodland. Oliver, for example, argues that the inclusion of ceramics with Late Archaic attributes "complicates and confuses classification and interpretation needlessly" (Oliver 1981:20). He comments that according to the original definition of the Archaic, it "represents a

preceramic horizon" and that "the presence of ceramics provides a convenient marker for separation of the Archaic and Woodland periods (Oliver 1981:21). Others would counter that such an approach ignores cultural continuity and forces an artificial, and perhaps unrealistic, separation. Sassaman and Anderson (1994:38-44), for example, include Stallings and Thom's Creek wares in their discussion of "Late Archaic Pottery." While this issue has been of considerable importance along the Carolina and Georgia coasts, it has never affected the Piedmont, which seems to have embraced pottery far later, well into the conventional Woodland period.

Ward (1983:65). The base camps produce a wide range of artifact types and raw materials which has suggested to many researchers long-term, perhaps seasonal or multi-seasonal, occupation. In contrast, the smaller sites are thought of as special purpose or foraging sites (see Ward 1983:67).

Middle Archaic (8,000 to 6,000 B.P.) diagnostic artifacts include Morrow Mountain, Guilford, Stanly and Halifax projectile points. Phelps (1983:25) also notes that the gradual increase from Paleoindian to Archaic in the Coastal Plain seems to peak during the Middle Archaic Morrow Mountain phase. Much of our best information on the Middle Archaic comes from sites investigated west of the Appalachian Mountains, such as the work by Jeff Chapman and his students in the Little Tennessee River Valley (for a general overview see Chapman 1977, 1985a, 1985b). There is good evidence that Middle Archaic lithic technologies changed dramatically. End scrapers, at times associated with Paleoindian traditions, are discontinued, raw materials tend to reflect the greater use of locally available materials, and mortars are initially introduced. Associated with these technological changes there seem to also be some significant cultural modifications. Prepared burials begin to more commonly occur and storage pits are identified. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and the Carolinas, where axes, choppers, and ground and polished stone tools are very rare.

The available information has resulted in a variety of competing settlement models. Some argue for increased sedentism and a reduction of mobility (see Goodyear et al. 1979:111). Ward argues that the most appropriate model is one which includes relatively stable and sedentary hunters and gatherers "primarily adapted to the varied and rich resource base offered by the major alluvial valleys" (Ward 1983:69). While he recognizes the presence of "inter-riverine" sites, he discounts explanations which focus on seasonal rounds, suggesting "alternative explanations . . . [including] a wide range of adaptive responses." Most importantly, he notes that:

the seasonal transhumance model and the sedentary model are opposite ends of a continuum, and in all likelihood variations on these two themes probably existed in different regions at different times throughout the Archaic period (Ward 1983:69).

Others suggest increased mobility during the Archaic (see Cable 1982). Sassaman (1983) has suggested that the Morrow Mountain phase people had a great deal of residential mobility, based on the variety of environmental zones they are found in and the lack of site diversity. The high level of mobility, coupled with the rapid replacement of these points, may help explain the seemingly large numbers of sites with Middle Archaic assemblages. Curiously, the later Guilford phase sites are not as widely distributed, perhaps suggesting that only certain micro-environments were used (cf. Ward [1983:68-69] who would likely reject the notion that substantially different environmental zones are, in fact, represented).

Recently Abbott et al. (1995) argue for a combination of these models, noting that the almost certain increase in population levels probably resulted in a contraction of local territories. With small territories there would have been significantly greater pressure to successfully exploit the limited resources by more frequent movement of camps. They discount the idea that these territories could have been exploited from a single base camp without horticultural technology. Abbott and his colleagues conclude, "increased residential mobility under such conditions may in fact represent a common stage in the development of sedentism" (Abbott et al. 1995:9).

From excavations at a Sandhills site in Chesterfield County, South Carolina, Gunn and his colleague (Gunn and Wilson 1993) offer an alternative model for Middle Archaic settlement. He accepts that the uplands were desiccated from global warming, but rather than limiting occupation, this environmental change made the area more attractive for residential base camps. Gunn and Wilson suggest that the open, or fringe, habitat of the upland margins would have been

attractive to a wide variety of plant and animal species.

Another point of some controversy is the idea that the groups responsible for the Middle Archaic Morrow Mountain and Guilford points were intrusive ("without any background" in Coe's words) into the North Carolina Piedmont, from the west, and were contemporaneous with the groups producing Stanly points (Coe 1964:122-123; Phelps 1983:23). Phelps, building on Coe, refers to the Morrow Mountain and Guilford as the "Western Intrusive horizon." Sassaman (1995) has recently proposed a scenario for the Morrow Mountain groups which would support this west-to-east time-transgressive process. Abbott and his colleagues, perhaps unaware of Sassaman's data, dismiss the concept, commenting that the sheer distribution and number of these points "makes this position wholly untenable" (Abbott et al. 1995:9).

The Late Archaic, usually dated from 6,000 to 3,000 or 4,000 B.P., is characterized by the appearance of large, square stemmed Savannah River projectile points (Coe 1964). These people continued to intensively exploit the uplands much like earlier Archaic groups within North Carolina, the bulk of our data for this period comes from the Uwharrie region.

One of the more debated issues of the Late Archaic is the typology of the Savannah River Stemmed and its various diminutive forms. Oliver, refining Coe's (1964) original Savannah River Stemmed type and a small variant from Gaston (South 1959:153-157), developed a complete sequence of stemmed points that decrease uniformly in size through time (Oliver 1981, 1985). Specifically, he sees the progression from Savannah River Stemmed to Small Savannah River Stemmed to Gypsy Stemmed to Swannanoa from about 5,000 B.P. to about 1,500 B.P. He also notes that the latter two forms are associated with Woodland pottery.

This reconstruction is still debated with a number of archaeologists expressing concern with what they see as typological overlap and ambiguity. They point to a dearth of radiocarbon dates and good excavation contexts yet, at the same time they

express concern with the application of this typology outside the North Carolina Piedmont (see, for a synopsis, Sassaman and Anderson 1990:158-162, 1994:35).

In addition to the presence of Savannah River points, the Late Archaic also witnessed the introduction of steatite vessels (see Coe 1964:112-113; Sassaman 1993), polished and pecked stone artifacts, and grinding stones. Some also include the introduction of fiber-tempered pottery about 4000 B.P. in the Late Archaic (for a discussion see Sassaman and Anderson 1994:38-44). This innovation is of special importance along the Georgia and South Carolina coasts, but seems to have had only minimal impact in North Carolina.

There is evidence that during the Late Archaic the climate began to approximate modern climatic conditions. Rainfall increased resulting in a more lush vegetation pattern. The pollen record indicates an increase in pine which reduced the oak-hickory nut masts which previously were so widespread. This change probably affected settlement patterning since nut masts were now more isolated and concentrated. From research in the Savannah River valley near Aiken, South Carolina, Sassaman has found considerable diversity in Late Archaic site types with sites occurring in virtually every upland environmental zone. He suggests that this more complex settlement pattern evolved from an increasingly complex socio-economic system. While it is unlikely that this model can be simply transferred to the Piedmont of North Carolina without an extensive review of site data and micro-environmental data, it does demonstrate one approach to understanding the transition from Archaic to Woodland.

Woodland Period

As previously discussed, there are those who see the Woodland beginning with the introduction of pottery suggestive of influences from northern cultures. In the Piedmont, the Early Woodland is marked by a pottery type defined by

Coe (1964:27-29) as Badin.² This pottery is identified as having very fine sand in the paste with an occasional pebble. Coe identified cord-marked, fabric-marked, net-impressed, and plain surface finishes. Beyond this pottery little more is known about the makers of the Badin wares than is known about those who made New River wares.

The dominant Middle Woodland ceramic type is typically identified as the Yadkin series. Characterized by a crushed quartz temper the pottery includes surface treatments of cord-marked, fabric-marked, and a very few linear check-stamped sherds (Coe 1964:30-32). It is regrettable that several of the seemingly "best" Yadkin sites, such as the Trestle site (31An19) explored by Peter Cooper (Ward 1983:72-73), have never been published.

In some respects the Late Woodland (1,200 B.P. to 400 B.P.) may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500-700 years. From the vantage point of the Middle Savannah Valley Sassaman and his colleagues note that, "the Late Woodland is difficult to delineate typologically from its antecedent or from the subsequent Mississippian period" (Sassaman et al. 1990:14). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971).

The Late Woodland is typically associated with small triangular points such as Uwharrie, Caraway, Pee Dee, and Clarksville (Coe n.d., 1964:49; Oliver 1985; South 1959:144-146). The characteristic pottery is the Uwharrie series which

contains crushed quartz (one characteristic of which is its tendency to protrude through the wall of the pottery). This series included cord-marked and net-impressed surface treatments. The ware was described by Coe in the unpublished Poole site report (Coe n.d.).³ This pottery appears to represent an evolution from the earlier Yadkin wares (Coe 1995:156). Of equal interest is a radiocarbon date of A.D. 1610, suggesting that this pottery lasted well into the protohistoric. Coe also notes that "Town Creek and other villages situated along the fall line between the Piedmont and the Coastal Plain seem to have formed a southern boundary for the production and use of Uwharrie ware," which he suggests was made by the ancestors of the Sara, Tutelo, Occaneechi, Saponi, and Keyauwee (Coe 1995:158). If this is correct, Uwharrie pottery may be exceedingly rare in the Piedmont.

Historic Overview

The area which is today Lincoln County was primarily occupied by the Catawba Indians. Contact between the Spanish and the Catawba occurred in the late 1500s and by the 1700s, exposure to diseases brought by the Europeans dramatically decreased the Catawba population. By 1750, the Catawba Nation numbered only approximately 1,000 people (Adams 1996:14). The Catawba came to the aid of the British during the French and Indian war. In spite of their continued support of the American colonist they were confined to a reservation along the Catawba River on the border of North and South Carolina in 1775.

During the 1750s, white settlers from the Mid-Atlantic states began moving into the Piedmont area (Gardner 1991:7). The settlers were primarily German and Scots-Irish immigrants and many of the German s settled near present day Lincolnton in the South Fork of the Catawba River

² The ceramics suggest clear regional differences during the Woodland which seem to only be magnified during the later phases. Ward (1983:71), for example, notes that there "marked distinctions" between the pottery from the Buggs Island and Gaston Reservoirs and that from the south-central Piedmont.

³This study was intended to be published under a monograph series entitled, *University of North Carolina Laboratory of American Archaeology Publications*, but was never completed. The work was conducted in 1936, although the ensuing report is undated.

(Gardner 1991:7). Most of these families were agriculturalists who established small farms and, focusing on subsistence crops, cultivated corn, potatoes, peas and beans.

During the Revolutionary War, the white settlers of Lincoln County were divided in their loyalties, although many supported the British (Gardner 1991:8). The Battle of Ramsour's Mill took place about 0.5 mile north of the city of Lincolnton, involving about 1,500 soldiers on both sides and claiming the lives of about 70 men (Baker 1991:1). This battle was the first patriot gain after the fall of Charleston to the British earlier in 1780 (Baker 1991:1). Three months later, the British were again defeated at the Battle of Kings Mountain by rebel militia unit, including a force from Lincoln County (Gardner 1991:8).

Lincoln County was created in 1779 and originally contained more than 1800 square miles and extending to the South Carolina border. As the population of the Piedmont increased, Lincoln County was divided into smaller units. By 1850, the land area of Lincoln County contained about 305 square miles.

The successful agricultural economy that existed before the Revolution continued to develop through the late eighteenth century (Gardner 1991:8). In addition to the other crops, wheat and corn became successful economic crops in the late eighteenth century and were shipped from Lincoln County to South Carolina. Because most of the farms in Lincoln County at this time were small, there were few large slave owners (Gardner 1991:8).

The nineteenth century economy diversified from the small crops of the eighteenth century to include the addition of cotton as a major cash crop and industries such as grist mills, tanneries, potteries and iron manufacturers (Adams 1996:19). The number of slaves in Lincoln County increased from 935 in 1790 to 5,386 by 1840, although the number of slave owners remained the same (Gardner 1991:9). This is most likely due to the increased success of cotton and tobacco as cash crops. Class conflicts were apparent in Lincoln County, when in 1825, poor

non-slave owning whites in the county urged the state legislature to pass a law excusing them from riding patrol to enforce slave laws, since they were not slave owners (Adams 1996:19).

Like other areas throughout the South, Lincoln County suffered from the hardships brought on by the Civil War. Almost 1,300 men from Lincoln County volunteered for service, depleting the county of many of its agricultural workers. No major action occurred in Lincoln County during the Civil War, although scavenging by both sides aided in the destruction of many farms in the area.

Industries were also affected by the Civil War. The iron industry, such as the Mount Welcome Forge south of Lincolnton, operated successfully until after the Civil War, when competition from both northern iron furnaces and other iron works in the south, such as those near Birmingham, decreased business. Two paper mills at the South Fork of the Catawba River began operations in 1870, but by the 1890s, production had stopped. Lincoln County also had three large mining operations at the Hoke, Burton, and Graham gold mines, although these were exhausted by 1896 (Adams 1996:19).

After the Civil War, agriculture once again grew in importance in the county. Major cash crops, such as cotton, tobacco, oats, and corn exceeded pre-war production. Sharecropping and renting farm land became common in the South after the Civil war. Sharecroppers paid landlords half of harvested crops in exchange for housing, land and the tools and animals necessary to work the land. Tenants who rented land paid the landlord in either crops or money for the land, housing and a portion of the fertilizer (Adams 1996:21).

In contrast to the iron, paper and mining industries, the textile industries grew in the late nineteenth century and by 1897, six cotton factories were located in the county. At that time, Lincoln County became a center, along with Catawba County, of an alkaline glazed pottery industry. The late nineteenth century also saw the arrival of the Chester and Lenoir railroad in Lincoln County

in 1881. A number of small railroad towns developed along the rail line in the Piedmont during the 1880s. By 1896, Lincolnton was connected to other cities in North and South Carolina by railroad.

During the early twentieth century, Lincoln County continued to develop an agricultural and industrial economy. The average farm size decreased during this period, although the number of farms increased. Tenancy continued to grow during this period. Cotton was grown in increasing quantities, and corn became the second most valuable agricultural product, followed by orchard crops, hay, potatoes and cane (Gardner 1991:14).

Other types of industry, such as furniture manufacturing, also became common in Lincoln County in the early twentieth century. In addition brick manufacturers, a casket factory, tin mining, and saw mills provided jobs to the people of Lincoln County (Gardner 1991:14). At least 14 textile factories were in operation by 1921 along the South Fork of the Catawba River. However, falling cotton prices after 1930 resulted in the closure of a number of mills, although by 1933, 16 mills provided jobs to over 2,000 people.

Unfortunately, falling prices and competition from other markets caused the textile industry to decline in Lincoln County in the late 1930s. Many families left the county for jobs in factories and other businesses. Although new furniture and food processing plants were established in Lincoln County, many residents began commuting to nearby cities to work.

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FIELD SURVEY AND RESULTS

Research Goals

The primary goals of this survey were to identify, record and assess the significance of archaeological sites within the 283 acre Lincoln County airport expansion survey tract. The archaeological sites identified were primarily evaluated for their potential National Register eligibility under Criterion D: the site has yielded, or may be likely to yield, information important in prehistory or history. Obviously such an approach requires that the property must have information which can contribute to our understanding of the past and that the information be significant (i.e., that it is able to address important research questions). It is not necessary that the information be unique, nor is it necessary that the information be controversial or challenge orthodox position.

As Townsend et al. (1993:31) clearly indicate, it is sufficient that the information reinforces previously gathered information. There is an implicit assumption that such reinforcement derives from additional tests of archaeological theories, and that such tests are necessary, even essential, part of "doing" science. Failure to contentiously test, and refine, archaeological theories and perspectives will result in a stagnant discipline, or alternatively, a discipline where research is equated with the most recent intellectual fad.

In order to evaluate eligibility, we have adopted the approach suggested by Townsend et al (1993:32), which involves five steps:

- The sites data sets are identified (these may include ceramics, lithics, floral or faunal material, architectural remains, radiocarbon material, or a wide range of other categories of information;

- the historic context of the site is identified, providing a framework for evaluation;

- important research questions which the site's data sets can address are identified;

- the data sets are evaluated in terms of archaeological integrity (i.e., are the data sets sufficiently well preserved to address the research questions); and

- the information is evaluated in terms of its importance (i.e., how will it contribute to the archaeological context).

Since the approach outlined is intended to be used to provide supporting documentation to National Register nominations, not the review of a large number of archaeological sites, we have operationalized the approach by combining sets and making the process more appropriate for survey level review. For example, the archaeological and historic context has been largely developed in the preceding discussions of archaeology and history in Lincoln County. Further, we have emphasized only those research questions which we believe are important in relation to these archaeological and historic contexts, reducing the need to justify research questions in each site discussion.

Field Methodology

The proposed field techniques involved the excavation of shovel tests at 100 feet intervals on transects spaced 100 feet apart on those areas which exhibited high, well drained soils. The majority of the survey tract contained moderate to steeply sloping hills that led to deep ravines which contained drainages. Although there were a

number of areas which contained poorly drained soils and extreme slopes, we did not anticipate any situations where the shovel testing interval would be increased to a distance greater than 100 feet.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially. Each test would measure about 1 foot square and would normally be taken to subsoil. All cultural remains would be bagged by provenience, with the exception of brick, mortar, and shell, which would be noted and discarded in the field. Notes would be maintained for profiles at any sites encountered.

The information required for the completion of North Carolina Office of the State Archaeologist site forms would be collected and photographs would be taken, if warranted in the opinion of the field director. For this survey, an archaeological site was defined as three or more artifacts within a 25 foot area. Modern garbage (dating to the last 50 years) was generally disregarded unless associated with earlier remains.

A total of 88 transects were shovel tested. All were spaced 100 feet apart, with shovel tests excavated every 100 feet. Although some areas of the survey tract were relatively open pasture, a vast majority of the survey tracts contained thick wooded areas which only allowed limited surface visibility of the ground during subsurface testing. The majority of the tract consisted of thick woods and briers.

A total of 1,012 shovel test stations were examined. A total of 210 or 21% of the shovel test stations were excavated in the survey tract. The remaining 802 shovel test stations fell in areas with surface visibility revealing red clay (indicating extensive erosion and allowing a surface inspection) and/or in areas with a slope over 10% (because of the steep slope these areas were not shovel tested, although they were walked and visually inspected).

Laboratory Methodology

The cleaning and cataloging of artifacts was conducted at the Chicora laboratories in Columbia. All items were assessed for

conservation needs during this processing. No specimens were encountered which warranted conservation and all items were either curated in their current condition or were drawn and discarded (as noted in the specimen catalog).

Analysis of the collections followed those professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains. The diagnostic lithic remains were compared to published typological descriptions by Coe (1952, 1964), Oliver (1981), and South (1959). The temporal, cultural, and typological classifications of any historic remains follow Noël Hume (1970), Miller (1980, 1991), Price (1979), and South (1977).

Results of the Survey

The cultural resources identified during the intensive survey of the 283 acre Lincoln County airport expansion survey consists of one historic house site (31LN184*) and one prehistoric site (31LN185**). Both are considered as isolated occurrences and neither is recommended eligible for inclusion on the National Register of Historic Places.

31LN184*

Site 31LN184* is located 220 feet south of Airport Drive about 5,500 feet from the intersection of North Carolina Highway 73 and Airport Drive. The eastern drainage of Lick Run is located approximately 4000 feet east of the site. The central UTM coordinates are N 3926120 E 485360. The site is located on an upland northern facing slope. The elevation at the site is 875 feet above mean sea level (AMSL) and, based on surface finds, the site measures ten feet north-south by 10 feet east-west, making the site approximately 100 feet square in size (Figure 11).

Vegetation at the site is a combination domestic grass and planted pine with a scrub oak understory, which allowed very limited surface visibility. The site was first encountered during the running of routine transect associated with shovel testing although materials were initially discovered on the surface. Only concrete slabs, assorted

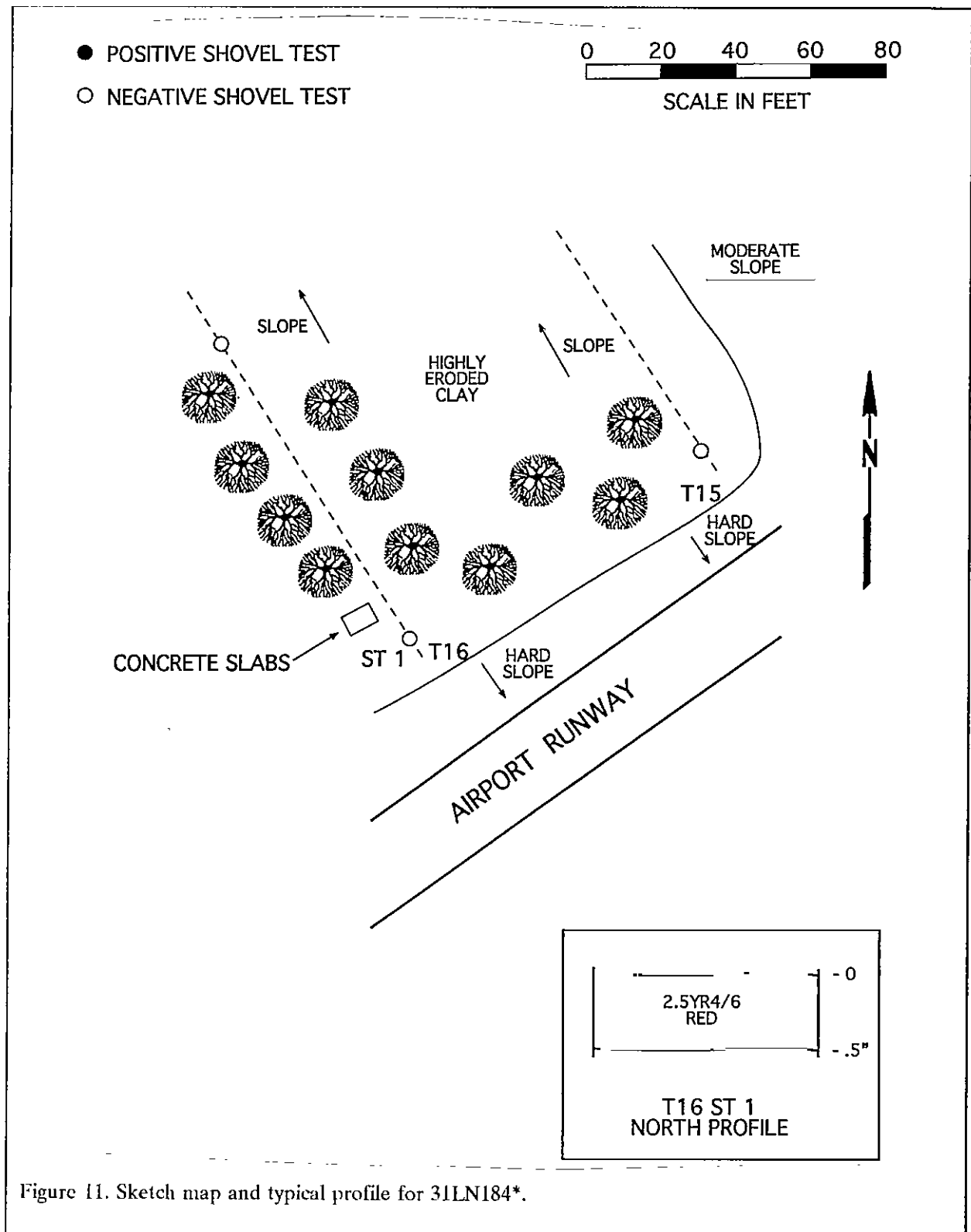
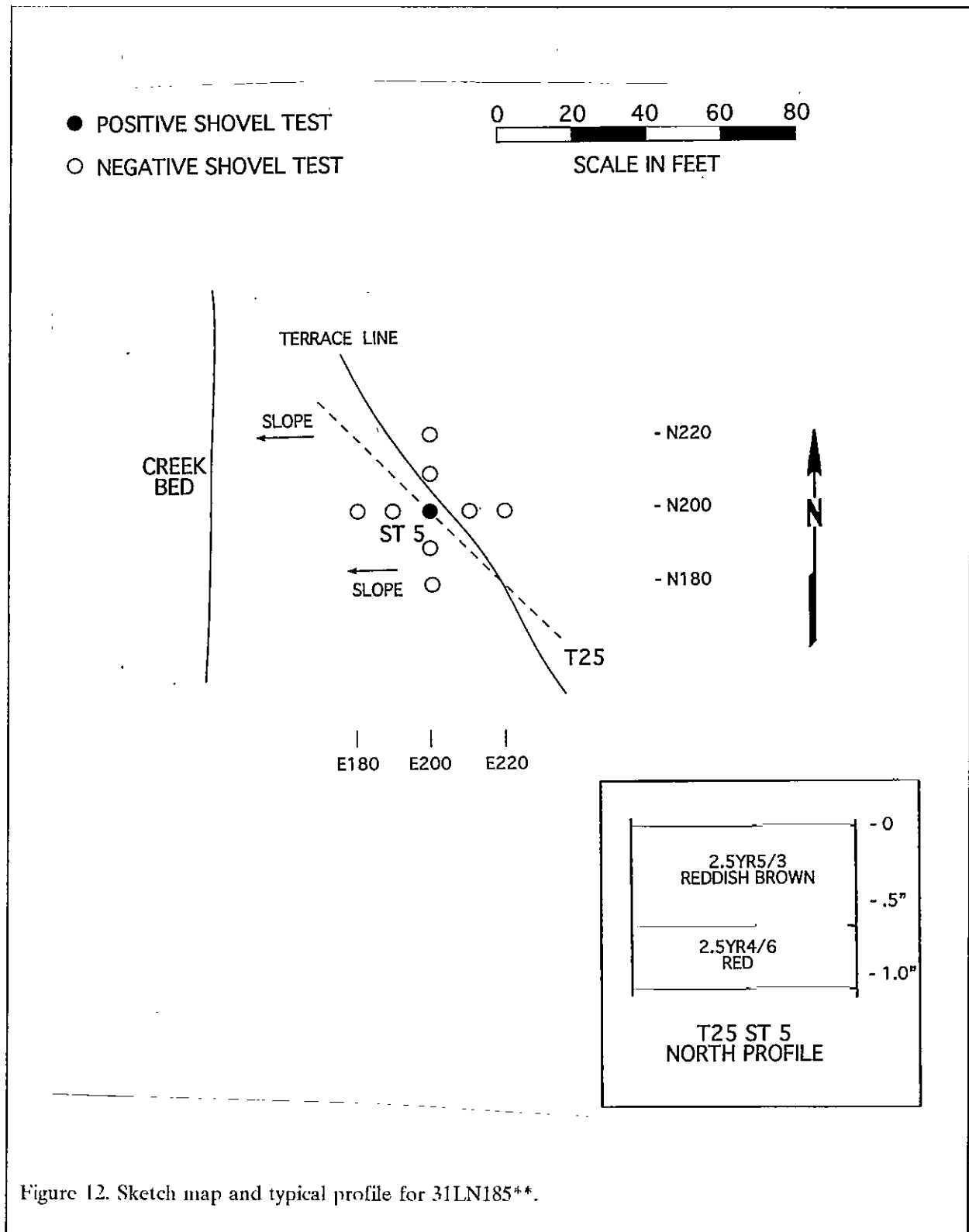


Figure 11. Sketch map and typical profile for 31LN184*.

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wooden boards, and roofing tin were found on the surface. No subsurface materials were recovered from shovel tests. The presence of sterile, red (2.5YR 4/6) clay on the surface precluded the excavation of any additional shovel tests in the site area.

While able to provide information on temporal placement (i.e., the early to late twentieth century) it seems unlikely that the assemblage exhibits either the data sets or the integrity to provide meaningful information regarding historic period research topics (Townsend et al. 1993:32). Soil profiles would indicate that the site has been heavily eroded and deflated. Site 31LN184⁺ is recommended as not eligible for inclusion on the National Register of Historic Places

31LN185**

Site 31LN185** is located 200 feet north of Airport Drive about 4,600 feet from the intersection of North Carolina Highway 73 and Airport Drive. A drainage of Lick Run Creek is located approximately 5,000 feet east of the site. The central UTM coordinates are N3926800 E484440. The site is located on a slight ridge slope, approximately 8%, which slopes toward a draining of Lick Run Creek approximately 60 feet to the west. The nearest source of permanent water is Leepers Creek approximately 7,000 feet to the west. The elevation of the site is about 850 feet AMSL and based on shovel testing the site is estimated to measure 3 feet square in size (Figure 12).

Vegetation at the site consisted of a oak overstory with a mixed oak understory. Surface visibility was poor and no artifacts were collected from the surface. The site was initially encountered during routine shovel testing (ST5 on T25) from which one quartz Savannah River Stemmed projectile point was recovered. The measurements for the stemmed point are 46 mm long, 39.91 mm wide, and 15.01 mm thick. Eight additional shovel tests were excavated in cardinal directions from the initially positive shovel test (N200E200). All exceeded 1.0 feet and soil profiles exhibited a reddish brown (2.5YR 5/3) loamy sand to a depth of 0.6 foot followed by 0.4

foot of red (2.5YR 4/6) clay. No additional artifacts were recovered.

The artifacts recovered during testing indicate a prehistoric isolated site. The lack of stratigraphic integrity throughout the site would indicate that the remains are the result of secondary deposition. While able to provide information on temporal placement (i.e., the Late Archaic Period) it seems unlikely that the assemblage exhibits either the data sets or the integrity to provide meaningful information regarding prehistoric research topics (Townsend et al. 1993:32). Even though subsurface remains were recovered, soil profiles would indicated that the site has been heavily disturbed through cultivation activities. Consequently, site 31LN185** is recommended as not eligible for inclusion on the National Register of Historic Places.

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CONCLUSIONS

The primary goals of this study were twofold. One was to identify and assess cultural resources which might be present on the Lincoln County Airport survey tract. The second was to determine eligibility for inclusion on the National Register of Historic Places. This research is intended to collect sufficient information on the Lincoln County Airport survey tract to allow the State Historic Preservation Office to make a determination of the sites eligibility for inclusion on the National Register of Historic Places.

First and foremost, this study provides detailed information on the data sets present within those areas slated for expansion of the airport. Second, the **Background Research** provides an overview for the prehistoric and historic context for the sites.

For prehistoric Piedmont sites there remain a vast number of significant research questions, including such topics as the typological significance of the Morrow Mountain I and II divisions, the temporal refinement of a number of both Archaic and Woodland components, examination of the typological changes occurring in the transition from the Archaic to the Woodland periods, the origin and development of pottery in the Carolina Piedmont, and the delineation of base camp vs. mobile foraging activities and tool kits (especially during the Woodland Period).

For the historic period we know very little about land use in this section of North Carolina, or how the growth of slavery affected yeoman farmers. Very little is known about yeoman farmers in general, especially how their ethnicity might be reflected in the archaeological record. Tenancy, while well researched using historic documents is still very poorly understood archaeologically.

Thus, a whole range of questions are possibly for this section of North Carolina and we have presented only a few of the many important,

and worthwhile, research topics which would help us better understand the prehistoric and historic heritage of the south central North Carolina Piedmont.

Yet, these questions must be evaluated in terms of the ability of the available data sets to address them. In other words, significant questions are, at times, easier to develop than it is to find data sets with the ability (or integrity) to answer those questions.

At 31LN184* the entire site has been displaced by bulldozing and the remains still present have been thoroughly mixed. The site appears to lack any integrity whatsoever. The presence of red clay subsoil and the failure to identify any artifacts indicates that the data sets themselves are very sparse. At least some of those structural items present indicate a time frame far more recent than 50 years, suggesting that the site may not be "sufficiently old" for evaluation. Based on the information available, this site is not recommended for inclusion on the National Register and, pending the concurrence of the State Historic Preservation Office, no additional management activities are recommended.

Site 31LN185** represents an isolated artifact — a quartz Savannah River Stemmed biface — with no other cultural remains found associated. As is commonly the case with isolated artifacts, the data sets available are simply not sufficient to warrant further research. Consequently, this site is also recommended as not eligible for inclusion on the National Register. No further management activities are recommended for this site.

The relative sparseness of archaeological sites on the project tract can be clearly associated with one primary factor — the steep slopes that dominate much of the area. The area has been subjected to extensive erosion because of these slopes and the nature of agricultural activities in

the Piedmont. Throughout the survey tract red clay was uniformly exposed on the surface. As a result, areas in which sites *might* have been present are extensively eroded and this soil loss reduces not only the chance of identifying sites with integrity, but also the likelihood of even finding artifacts. Previous research on the original airport tract came to the same conclusion — erosion has effectively removed the archaeological or has limited our ability to understand items that are present.

In spite of the intensity of this survey there is always the possibility that archaeological sites were not identified. Consequently, should archaeological remains, such as bones, stone tools, pottery, bottles, concentrations of bricks, or other similar materials be found during construction, the contractor should suspend operations and contact either Chicora Foundation or the North Carolina State Historic Preservation Office.

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